Amendments to the Specification

Please replace paragraph [0013] with the following amended paragraph:

[0013] Figure 3 is a partial side elevational view of the worm.

Please add the following new paragraph:

[0014] Figure 4(a) is a prospective view of the upper perspective view of the output gear.

Please add the following new paragraph:

[0015] Figure 4(b) is a side elevational view, upside down, of the output gear.

Please add the following new paragraph:

[0016] Figure 5(a) is a side elevational view of the internal (intermediate) gear.

Please add the following new paragraph:

[0017] Figure 5(b) is an upper perspective view of the internal gear.

Please add the following new paragraph:

[0018] Figure 6(a) is a bottom perspective view of the output gear.

Please add the following new paragraph:

[0019] Figure 6(b) is a side elevational view of the output gear, upside down.

Please replace original paragraph [0014] with the following amended paragraph:

[0020] Referring to the accompanying drawings in which like reference numbers indicate like elements, the preferred embodiment of the actuator (10) generally includes a housing (12) with a thrust support (14), an electric motor (16) having an output shaft (18), a worm (20) rotatable with the output shaft ~~(22)~~(18), a gear train ~~(24)~~, an output gear (26), a driver ~~(28)~~(of known variety), a sensor gear (30), an optical encoder (32), a printed circuit board (34). The gear train includes a

worm gear (36) and an internal (intermediate) gear (38). The worm gear (36), internal gear (38), and output gear (26) are each rotatably mounted on gear shafts (40, 42, 44 respectively). The sensor gear is rotatably mounted on a sensor gear shaft (46).

Please replace paragraph [0015] with the following amended paragraph:

[0021] In the preferred embodiment, the electric motor (16) causes the rotation of its output shaft (18) which in turn causes the rotation of the worm (20). The worm gear (36) and the internal gear (38) have external teeth (48, 50) and hub teeth (52, 54). In the preferred embodiment, the worm (20) meshes with the external teeth (48) of the worm gear (36) causing its rotation. The hub teeth (52) of the worm gear (36) mesh with the external teeth (50) of the internal (intermediate) gear (38) causing its rotation. This gear assembly provides less vibration and lower noise than other known actuators.

Please replace paragraph [0016] with the following amended paragraph:

[0022] In the preferred embodiment, the hub teeth (54) (Fig. 5(b) of the internal gear (38) mesh with the teeth ~~(54)~~(56) of the output gear (26). The teeth ~~(54)~~(56) of the output gear (26) also mesh with the teeth ~~(56)~~ of the sensor gear (30) (indicated in phantom in Fig. 2) causing its rotation on the sensor gear shaft (60). A sensor wheel (58) is also rotatably mounted on the sensor gear shaft (60) (along gear 30). Therefore, the rotation of the sensor gear (indicated in phantom at (30) causes the rotation of the sensor gear shaft (60) and therefore, the sensor wheel (58). The sensor wheel (58) has a number of slots in its diameter that are detected by an optical encoder (32). Therefore, the optical encoder (32) is operatively connected to the sensor wheel

(58) to track its rotation. The optical encoder (32) is also arranged on a printed circuit board (34) so that the sensor wheel's rotation may be recorded by the printed circuit board (34).

Please replace paragraph [0017] with the following amended paragraph:

[0023] In the preferred embodiment, the output gear (26) has a hollowed portion ~~(60)~~(62) at its center for receiving the driver (28). Upon rotation of the output gear (26), the driver (28) rotates thereby moving flaps to control the air flow in the heater, ventilator and air-conditioning system. The printed circuit board (34) detects the position of the flaps by recording the rotation of the sensor wheel (58). The printed circuit (34) controls the motor (16) based on the position of the flaps. This simplified process is affordable and provides higher reliability due to the optical encoder (32) being directly connected to the printed circuit board (34). The actuator also provides for more simplified process and for convenient assembly which lowers the cost of manufacturing the actuator.

Please replace paragraph [0018] with the following amended paragraph:

~~[0018]~~[0024] In view of the foregoing, it will be seen that the several advantages of the invention are achieved and attained.

Please replace paragraph [0019] with the following amended paragraph:

~~[0019]~~[0025] The embodiments were chosen and described in order to best explain the principles of the invention and its practical application to thereby enable others skilled in the art to best utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated.

Please replace paragraph [0020] with the following amended paragraph:

~~[0020]~~[0026] As various modifications could be made in the constructions and methods herein described and illustrated without departing from the scope of the invention, it is intended that all matter contained in the foregoing description or shown in the accompanying drawings shall be interpreted as illustrative rather than limiting. For example, although the present invention is designed with the use of an optical encoder to detect the rotation of the sensor wheel, the invention may also be designed with a Hall sensor for detecting the sensor wheel's rotation. In this

embodiment, the sensor wheel has a plurality of magnetized points on its diameter that are detected by the Hall sensor. Thus, the breadth and scope of the present invention should not be limited by any of the above-described exemplary embodiments, but should be defined only in accordance with the following claims appended hereto and their equivalents.